

Virginia Regulatory Town Hall

Proposed Regulation Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulation for the Control of Motor Vehicle Emissions in Northern Virginia
Primary Action:	9 VAC 5 Chapter 91 (9 VAC 5-91-10 et seq.)
Secondary Action(s):	None
Action Title:	Motor Vehicle Inspection and Maintenance Program (Rev. MG)
Date:	April 9, 2001

This information is required pursuant to the Administrative Process Act (§ 9-6.14:9.1 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), and the *Virginia Register Form, Style and Procedure Manual*. Please refer to these sources for more information and other materials required to be submitted in the regulatory review package.

Summary *

Please provide a brief summary of the proposed new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment or restate the purpose and intent of the regulation.

The current program requires that affected vehicles be presented to emissions inspection stations biennially to receive an emissions inspection. This is accomplished through a network of service stations, repair garages, and other similar facilities that perform the inspections. Vehicles which fail the test are denied motor vehicle registration until inspection has been accomplished. Retests, after failure and repair, are free if accomplished within 14 days of the test and performed by the emissions inspection station which performed the initial test. If a motorist wishes to request a waiver of the test, an expenditure of at least \$450 on emissions-related repairs is required. The cost amount is adjusted each January by applying the Consumer Price Index released the previous fall by the federal government.

The geographic coverage of the program consists of the counties of Arlington, Fairfax, Loudoun, Prince William, and Stafford; and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park. Cars and trucks weighing up to 10,000 pounds and are 25 years old and newer are subject to an exhaust emissions inspection using ASM equipment which tests cars under "loaded" conditions using a dynamometer. On- Board Diagnostics Systems (OBD) on vehicles so equipped will also be inspected. In addition, random testing of vehicles is accomplished using either roadside pullovers

or a remote sensing device next to the roadway. Failing vehicles are required to report to an inspection for an out-of-cycle test.

The proposed amendments make a number of revisions to conform to changes in Virginia law and federal regulations, as well as to conform to current testing procedures and to enhance program enforcement. One of the primary changes affecting the vehicle owner is a change in the model year coverage: from the testing of model year 1968 and newer to a rolling exemption for vehicles 25 years and older. This change actually has been in effect since July 1, 2000 in accordance with the Virginia statute.

Another major change involves implementation of OBD testing. In accordance with changes in federal regulation, OBD testing will be performed for vehicles of model year 1996 and newer beginning January 1, 2002. OBD testing will also be required for diesel-fueled vehicles so equipped (model year 1997 and newer) using the same testing equipment used for gasoline-powered vehicles.

Emissions standards for the two speed idle (TSI) test are being tightened for some vehicles 1990 and newer, and the regulation is being revised to correct the order in which the TSI test modes are performed.

For the acceleration simulation mode (ASM) test, which is the test performed on the majority of vehicles subject to the emissions inspection program, the regulation is being revised to allow DEQ the flexibility to set standards less stringent than the federal "final" ASM standards. In addition, changes have been made to various permitting, licensing and enforcement procedures to reduce redundancy.

Basis *

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation proposed. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the proposed regulation and that it comports with applicable state and/or federal law.

Section 46.2-1176-1187.3 of the Virginia Air Pollution Control Law (Title 46.2, Chapter 10 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations for the control of motor vehicle emissions and for the testing process. Written assurance from the Office of the Attorney General that (i) the State Air Pollution Control Board possesses the statutory authority to promulgate the proposed regulation amendments and that (ii) the proposed regulation amendments comport with the applicable state and/or federal law is available upon request.

Purpose *

Please provide a statement explaining the rationale or justification of the proposed regulation as it relates to the health, safety or welfare of citizens.

The purpose of the regulation is to require that motor vehicles undergo periodic emissions inspection and be maintained in compliance with emission standards for (i) the protection of public health and welfare, and (ii) the attainment and maintenance of the air quality standards. The proposed amendments are being made to conform to state law and federal Clean Air Act requirements for the testing of emissions from motor vehicles located or primarily operated in Northern Virginia.

Substance *

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement providing detail of the regulatory action's changes.

1. Modify definition of "Motor vehicle " to reflect statutory changes.
2. Add definition of "Authorized personnel" to provide more flexibility to station owners.
3. Add definitions related to EPA requirement for on-board diagnostic testing, including "OBD system," "OBD test," and "OBD vehicle."
4. Modify exhaust emission standards for two-speed idle (TSI) emissions test (9 VAC-5-91-160).
5. Modify exhaust emission standards for ASM emissions test (9 VAC-5-91-170).
6. Modify exhaust emission standards for remote sensing emissions test (9 VAC-5-91-180).
7. Repeal requirements for evaporative system purge test (9 VAC-5-91-200 and 9 VAC-5-91-460).
8. Add provisions for visible emissions standards (9 VAC-5-91-210).
9. Modify reporting requirements for fleet inspection stations according to EPA requirements (9 VAC 5-91-370).
10. Add provisions for conducting OBD tests for 1996 and newer gasoline and diesel powered vehicles equipped with OBD systems (9 VAC 5-91-420).
11. Eliminate provisions setting waiver phase-in amounts for dates that have already passed (9 VAC 5-91-420).
12. Add provisions that provide more flexibility in ASM test procedure (9 VAC 5-91-430).

13. Modify regulatory language to more closely reflect software specifications for test procedures (9 VAC 5-91-440).
14. Repeal requirements for warranty eligibility (9 VAC 5-91-470).
15. Modify table of major violations to reflect additional flexibility incorporated in the regulation language for test procedures (9 VAC 5-91-620).
16. Repeal provisions addressing federal facilities to comply with EPA requirements (Part XIII).

Issues *

Please provide a statement identifying the issues associated with the proposed regulatory action. The term "issues" means: 1) the primary advantages and disadvantages to the public of implementing the new or amended provisions; and 2) the primary advantages and disadvantages to the agency or the Commonwealth. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect

1. Public: The primary advantage to the general public is that air quality will improve due to the technical changes to program operation. The change to the definition of motor vehicle, for example, will result in a more effective program with the need to inspect fewer vehicles. Changes in testing procedures will result in faster yet more thorough inspections which translates into shorter lines at the testing facilities. Changes in certification requirements will mean repairs to vehicles that fail the test will be more effective.

Changes have been made to tighten the two-speed idle (TSI) test standards. This will impact a small number of vehicle owners whose vehicles would fail the new standards, but would pass the existing standards. According to current test data, this change will affect fewer than 1% of the 1990 and newer vehicles that receive the TSI test. As these vehicles age, the fail rate is expected to increase somewhat. Although it is a disadvantage that there will be expenses for repairs, there are also advantages to the vehicle owners in that needed repairs will increase vehicle fuel efficiency and enhance vehicle life, not to mention the improvement in air quality. Currently, vehicles with known faults can pass the existing standards and that is unacceptable for proper program operation.

Changes have been made to allow DEQ to set less stringent ASM test standards than those currently recommended by EPA. DEQ believes the EPA final standards may be too strict for some vehicle classes and will result in these vehicles being difficult or impossible to repair to the standards. The current regulation requires that the EPA enhanced I/M performance standards be met and that the EPA final standards be implemented.

Changes have been made with respect to the testing of federal fleet vehicles. As currently written, there is a separate section for federal fleets. The regulation has been amended to treat federal fleets the same as private fleets as required by law. As a

result of this requirement, some additional reporting requirements for non-federal fleets are necessary; however, DEQ believes this reporting will be minimal. Non-federal fleet vehicle test information is on the DEQ electronic data base and can be accessed directly by DEQ. Thus, the additional reporting requirements would affect only fleets of vehicles not registered with DMV.

Changes have been made regarding OBD testing. As currently written, OBD testing was to be added as a requirement for passing the I/M test beginning January 3, 2000. The proposed amendments postpone this until such time as the department deems appropriate. This will allow the department time to conduct a pilot test to evaluate OBD testing in conjunction with ASM testing. EPA anticipates that, once the fleet turns over and most vehicles are equipped with the correct equipment, OBD tests will eliminate the need for tail-pipe or ASM testing. Since the OBD test only takes a few minutes while the ASM test takes about 15 minutes, this will be a considerable advantage to both the vehicle owner and the inspection station.

OBD systems identify faults that are not necessarily detected with an ASM or TSI test. This may be perceived as a disadvantage by the public as there may be a cost for a vehicle repair that otherwise would go undetected. The associated advantage is that the vehicle owner will be alerted to these emission component faults before they could cause extensive collateral damage. For example, an expensive catalytic converter can be quickly damaged by an excess rich mixture condition even though the converter may still be operating well enough to pass a tailpipe test. In addition, with each vehicle repair less pollution is emitted.

Similar advantages and disadvantages will occur to owners of light duty diesel vehicles which will also be subject to OBD testing. Diesel vehicles have not been tested in the I/M program in the past because such testing requires completely different testing equipment. However, beginning with model year 1997, all light duty diesel vehicles certified for sale in the US are required to be equipped with OBD systems similar to that of gasoline fueled vehicles. The testing of both OBD systems is the same.

Due to OBD testing, equipment will need to be upgraded at all inspections stations, i.e. approximately 400 testing stations. The cost of this upgrade will range from \$1,500 to \$3,000 per unit depending on the existing equipment currently installed in the test facility. This additional cost is expected to be offset by the time savings of OBD testing; the OBD test is expected to reduce the time to complete a full inspection sequence by at least 10 minutes.

2. Department: Most of the issues affecting the department are a result of either technical changes in program operation or federal requirements. Amendments due to technical changes in program operation include: (i) changes in the wording of some definitions, (ii) changes in the order and some elements of the testing procedure, (iii) changes in the timing and flexibility of some test standards and (iv) changes in some permitting and licensing procedures. Amendments due to federal requirements include: (i)

deletion of special treatment of federally owned or controlled vehicles and (ii) changes in some enforcement procedures to reduce redundancy and overlap.

Few disadvantages are associated with these regulatory changes. There will be additional data management as a result of the information generated by OBD testing; however, the current computer capabilities are more than adequate to address this issue.

The overwhelming advantage from OBD testing is the increased emission reductions and cleaner air for Virginia citizens and continued EPA approval of the Commonwealth's I/M program. Tightening the TSI and ASM standards will have a similar advantageous effect.

Localities Particularly Affected *

Please provide the identity of any localities particularly affected by the proposed regulation.

The geographic coverage of the program consists of the counties of Arlington, Fairfax, Loudoun, Prince William, and Stafford; and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.

Public Participation *

Please indicate the nature of the comments the Department is soliciting pursuant to this notice.

The Department is seeking comment on the proposed regulation and the costs and benefits of the proposal. The Department is also seeking comment on the impacts of the proposed regulation on farm and forest lands.

Impact

Please identify the anticipated fiscal impacts and at a minimum include: (a) the projected cost to the state to implement and enforce the proposed regulation, including (i) fund source / fund detail, (ii) budget activity with a cross-reference to program and subprogram, and (iii) a delineation of one-time versus on-going expenditures; (b) the projected cost of the regulation on localities; (c) a description of the individuals, businesses or other entities that are likely to be affected by the regulation; (d) the agency's best estimate of the number of such entities that will be affected; and (e) the projected cost of the regulation for affected individuals, businesses, or other entities. Include a description of the beneficial impact the regulation is designed to produce.

1. Entities Affected

Owners of motor vehicles registered in Northern Virginia I/M area subject to the I/M program, owners of permitted emissions inspection stations, licensed emission inspectors, owners of certified emissions repair facilities, and certified emissions repair technicians.

There are approximately 1.3 million vehicles subject to the I/M program in the Northern Virginia area. There are currently 392 permitted emissions inspection stations, 1690 licensed emission inspectors, 440 certified emission repair facilities and 1226 certified emission repair technicians.

2. Fiscal Impact

a. Costs to Affected Entities

The 392 permitted emissions inspection stations have purchased or leased certified emissions testing equipment from one or more of six equipment manufacturers. These manufacturers may charge the stations for required upgrades as a result of changes to the regulations. The cost of the upgrades will range from \$1,500 to \$3,000 per unit. However, it is expected that the OBD equipment will reduce the average time to complete a full emissions test by approximately 10 minutes. DEQ estimates that this time savings will save the average station approximately \$333 per year.

OBD testing of light duty diesel vehicles is expected to include only two passenger vehicle models, Volvo and Mercedes; diesel powered trucks are believed to have GVWR greater than 8,500 lbs. and would be exempt from testing. Owners of these passenger vehicles will have to spend no more than \$20 every two years for testing plus \$2 per year to DMV upon registration. Data for diesel vehicle OBD failures is not available since OBD equipped diesel vehicles are still relatively new (model year 1997 and newer), however, repairs for OBD failures on gasoline vehicles have averaged about \$250.

The proposed regulation changes are not expected to have financial implications for other affected entities.

b. Costs to Localities

The projected cost of the regulation to localities is not expected to be beyond that of other affected entities and is addressed in paragraph 2a above.

c. Costs to Agency

It is not expected that the regulation will result in any cost to the Department beyond that currently in the budget. Most of the proposed regulatory changes do not involve an increased cost to the agency since procedures and equipment are already in place to handle activities and data collection. With respect to OBD testing, there will be additional data collection required, however, this is not viewed as an additional expense since OBD testing was already a requirement in the regulation.

The integration of OBD testing, once fully implemented, along with the proposed amendments will streamline the testing procedure and eventual data collection, thus reducing the burden on DEQ and the inspection stations.

The source of Department funds to carry out this regulation is the mobile source fund (fees charged to affected entities under the I/M program). The activities are budgeted under the following program (code)/subprogram (code): Environmental and Resource Management (5120000)/Air Quality Mobile Source Regulation (5121500). The costs are expected to be ongoing.

d. Benefits

Program changes will result in a more efficient testing procedure that will reduce the queue time for motorists waiting to get tested plus increasing the throw-put for the stations doing the testing. Changes in the testing standards for the two-speed idle test, ASM test and inclusion of the OBD test will result in the identification of more dirty vehicles, repair of those vehicles and cleaner air for the citizens of Northern Virginia.

e. Small Business Impact

The impact upon facilities that meet the definition of small business provided in §9-199 of the Code of Virginia is addressed in paragraph 2a above.

Legal Requirements

Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the contemplated regulation. The discussion of these requirements should include a description of their scope and the extent to which the requirements are mandatory or discretionary. Full citations for the legal requirements and web site addresses, if available, for locating the text of the cited legal provisions should be provided.

Federal Requirements

Federal Clean Air Act (CAA):

<http://www.epa.gov/ttn/oarpg/gener.html>

Code of Federal Regulations (CFR):

<http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html>

Federal Register (FR):

http://www.gpo.gov/su_docs/aces/aces140.html

The 1990 Amendments to the Clean Air Act established a process for evaluating the air quality in each region and identifying and classifying each nonattainment area according to the severity of its air pollution problem. Nonattainment areas are classified as marginal, moderate, serious, severe and extreme. Marginal areas are subject to the least stringent requirements and each subsequent classification (or class) is subject to successively more stringent control measures. Areas in a higher classification of nonattainment must meet

the mandates of the lower classifications plus the more stringent requirements of their own class.

The Northern Virginia area has an ozone air pollution problem classified by the EPA as "serious." The problem is a result of emissions from both industrial sources and motor vehicles. The Act requires that all areas classified as serious must implement an enhanced vehicle emissions inspection and maintenance program, commonly referred to as I/M.

Section 182(c)(3) of the Clean Air Act requires that the state submit revisions to the state implementation plan to "provide for an enhanced program to reduce hydrocarbon emissions and NO_x emissions from in-use motor vehicles." The program "shall comply in all respects with guidance...by the Administrator." The Act requires that enhanced I/M Programs be implemented within two years of enactment (11/16/90) of the Clean Air Act Amendments of 1990. The program implemented by the state must achieve a performance standard equal to:

(i) "a program combining emission testing, including on-road emission testing, with inspection to detect tampering with emission control devices and misfueling for all light-duty vehicles and all light-duty trucks subject to standards under section 202; and

(ii) program administration features necessary to reasonably assure that adequate management resources, tools, and practices are in place to attain and maintain the performance standard."

The compliance method is to be established, per the Act, by EPA. The state program, per the Act, must include, at a minimum:

Computerized emission analyzers, including on-road testing devices.

No waivers for vehicles and parts covered by an emission control performance warranty.

For non-warranty situations, waivers only after \$450 (in 1990 dollars) has been spent for emissions-related repairs.

Enforcement through registration denial.

Annual testing unless biennial testing, in combination with other features, will equal or exceed emissions reductions obtainable through annual inspections.

Operation on a centralized basis unless the state demonstrates to the satisfaction of the Administrator that a decentralized program will be equally effective.

This law is implemented by EPA through 40 CFR Part 51, subpart S. The performance standard for the program is contained in §51.351, "Enhanced I/M Performance Standard." It includes:

Centralized testing.

Annual testing.

Testing of 1968 and later model year vehicles.

Transient, mass emissions testing on 1986 and later model year vehicles, two-speed idle testing of 1981-1985 vehicles, and single-speed idle testing of pre-1981 vehicles.

Testing of light duty vehicles and trucks.

Emissions standards according to model year and weight class as enumerated in §51.351(a)(7).

Visual inspection of the catalyst and fuel inlet restrictor on all 1984 and later model year vehicles.

Evaporative system integrity (pressure) test on 1983 and later vehicles and an evaporative system transient purge test on 1986 and later vehicles.

Twenty percent emission test failure rate among pre-1981 model year vehicles.

Three percent waiver rate.

Ninety-six percent compliance rate.

On-road testing of at least 0.5% of the subject vehicle population.

Under the current rule, the state has considerable flexibility to design its own program and demonstrate that it is as effective as the EPA model program in reducing emissions.

State Requirements

Code of Virginia:

<http://leg1.state.va.us/000/cod/codec.htm>

Virginia Administrative Code (VAC):

<http://leg1.state.va.us/000/reg/toc.htm>

Section 46.2-1176 through Section 46.2-1187.3 of the Virginia Motor Vehicle Emissions Control Law (Title 46.2, Chapter 10, Article 22 of the Code of Virginia) requires a "test and

repair enhanced emissions inspection program" for vehicles that have actual gross weights of 10,000 pounds or less and are registered in the counties of Arlington, Fairfax, Loudoun, Prince William, and Stafford, and the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park. Key provisions of the legislation include:

A biennial inspection;

An inspection fee cap of \$20.00;

A minimum repair cost of \$450.00 (in 1990 dollars) in order to qualify for a waiver, and a requirement that repairs to qualify for a waiver be done by a certified repair technician;

Motor vehicles being titled for the first time may be registered for up to two years without being subject to an emissions inspection;

An exemption for any of the following vehicles: (i) vehicles powered by a clean special fuel as defined in §58.1-2101, (ii) motorcycles, (iii) vehicles which at the time of manufacture were not designed to meet emission standards set or approved by the federal government, (iv) any antique motor vehicle as defined in §46.2-100 and licensed pursuant to §46.2-730, or (v) vehicles for which no testing standards have been adopted by the Board;

The requirement for the inspection to apply to all vehicles registered and/or operated in the affected area, including (i) vehicles owned by government entities, (ii) vehicles owned by military personnel residing in the affected areas, and (iii) vehicles owned by leasing or rental companies;

The certification of motor vehicle emissions repair technicians and emissions repair facilities, including the suspension or revocation of such certification;

In addition to biennial testing of all subject vehicles, the requirement for on-road testing of motor vehicles in use and for follow-up testing of those vehicles which exceed emissions standards; and

The requirement for the State Air Pollution Control Board to adopt regulations to implement the program.

Comparison with Federal Requirements

Please describe the provisions of the proposed regulation which are more restrictive than applicable federal requirements together with the reason why the more restrictive provisions are needed.

The proposed regulation amendments are not more restrictive than the applicable legal requirements.

Need

Please provide an explanation of the need for the proposed regulation and potential consequences that may result in the absence of the regulation. Also set forth the specific reasons the agency has determined that the proposed regulatory action would be essential to protect the health, safety or welfare of citizens or would be essential for the efficient and economical performance of an important governmental function. Include a discussion of the problems the regulation's provisions are intended to solve.

One of the primary goals of the federal Clean Air Act (Act) is the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS). These standards, designed to protect public health and welfare, apply to six pollutants, of which ozone is the primary focus of this proposed action. Ozone is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the air react together in the presence of sunlight. VOCs are chemicals contained in gasoline, polishes, paints, varnishes, cleaning fluids, inks, and other household and industrial products. NO_x emissions are a by-product from the combustion of fuels and industrial processes.

The National Ambient Air Quality Standard for ozone is currently 0.12 parts per million (ppm) and was established by the U.S. Environmental Protection Agency (EPA) to protect the health of the general public with an adequate margin of safety. When concentrations of ozone in the ambient air exceed the federal standard the area is considered to be out of compliance and is classified as "nonattainment." Several counties and cities within the Northern Virginia area have been identified as ozone nonattainment areas according to provisions of the Act.

States are required to develop plans to ensure that areas will come into compliance with the federal health standard. Failure to develop adequate programs to meet the ozone air quality standard (i) may result in the continued violations of the standard and subsequent negative affects on human health, (ii) may result in assumption of the program by EPA, at which time the Commonwealth would lose authority over matters affecting its citizens, and (iii) may result in the implementation of sanctions by EPA, such as more restrictive requirements on new major industrial facilities and loss of federal funds for highway construction. Furthermore, if a particular area fails to attain the federal standard by the legislatively mandated attainment date, EPA is required to reassign it to the next higher classification level (denoting a worse air quality problem), thus subjecting the area to more stringent control requirements.

Motor vehicle emissions inspection programs, known as inspection and maintenance (I/M) programs, are an integral part of the effort to reduce mobile source air pollution. Cars and trucks create about half of the ozone air pollution. Of all highway vehicles, passenger cars and light trucks emit most of the vehicle-related carbon monoxide and ozone-forming hydrocarbons. Tremendous progress has been made in reducing these pollutants; however, total vehicle emissions remain high. This is because the number of vehicle miles traveled on our highways has doubled in the last 20 years, offsetting much of the technological progress in vehicle emission control over the same two decades. Ongoing

efforts to reduce emissions from individual vehicles will be necessary to achieve our air quality goals.

I/M programs achieve their objective by identifying vehicles that have high emissions as a result of one or more malfunctions and requiring them to be repaired. Minor malfunctions in the emissions control system can increase emissions significantly. The average car on the road can emit three to four times the carbon monoxide and hydrocarbons allowed by new car standards if emission control systems are malfunctioning. Unfortunately, rarely is it obvious which cars have malfunctions as the emissions themselves may not be noticeable and emission control malfunctions do not necessarily affect vehicle driveability.

I/M programs provide a way to check whether the emission control systems on a vehicle are working correctly. All new passenger cars and trucks sold in the United States today must meet stringent air pollution standards and those standards became more stringent in model year 1994 and again in 1998, but they can only retain this low-polluting profile if the emission controls and engine are functioning properly. An I/M program is designed to ensure that vehicles stay clean in actual use. This, in turn, can substantially reduce the amount of volatile organic compounds, carbon monoxide, and nitrogen oxides emitted to the ambient air, thereby reducing the formation of ozone, lowering ozone concentrations, and contributing toward attainment of the NAAQS.

Detail of Changes

Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description of changes implemented by the proposed regulatory action. Where applicable, include cross-referenced citations when the proposed regulation is intended to replace an existing regulation.

General: Throughout this revision, time periods for licensing and certification renewals have been changed from number of days to number of months, based on the last day of the month. This change will simplify compliance with various permitting or licensing time requirements. These changes have not been itemized in this list of changes.

The following lists and describes all changes that are not strictly editorial or corrections due to format requirements with the exception of the above.

PART I.

DEFINITIONS.

9 VAC 5-91-20 Terms defined.

1. The definition of "Access code" is modified to include authorized station personnel access to the certified analyzer system.

2. The definition of "Actual gross weight" is revised to specify that if gross vehicle weight rating (GVWR) is unavailable, the department may make a determination using information such as vehicle information number (VIN) decoders. This conforms to current practice and deletes the use of EW and GW to determine test type applicability.
3. The definition of "Affected motor vehicle" is revised to conform to recent legislative changes (exempting vehicles 25 years and older). In addition, tactical military vehicles are exempted from testing per agreements with respect to federal fleet vehicles.
4. The definition of "Air system" is modified for clarification.
5. The definition of "Alternative evaporative system" is modified by deleting the reference to the evaporative system purge testing which is no longer required by EPA.
6. The definition of "Alternative fuel" is deleted as it is not used in the regulation.
7. The definition of "Alternative method" is added for clarification.
8. The definition of "Authorized personnel" is added to provide more flexibility to the station manager.
9. The definition "Certified enhanced analyzer system" or "analyzer system" is modified to delete the reference to the purge test.
10. The definition of "Certification of emissions inspection" is modified. The word "temporarily" has been added to clarify that waivers are not permanent.
11. The definition of "Chargeable inspection" is modified for clarity.
12. The definition of "Curb idle" is modified due to technical changes in the program.
13. The definition of "Emissions control systems" is expanded to include "equipment," and the word "primary" replaces "sole" to correct for the possibility that emissions control systems may have multiple purposes.
14. The definition of "Enhanced emissions inspection program" is modified to include a reference to the Virginia Motor Vehicle Emissions Control Law.
15. The definition of "EPA" has been added.
16. The definition of "Evaporative system pressure test" is modified to be implemented at the department's discretion.
17. The definition of "Evaporative system purge test" is deleted since EPA has removed the purge test as part of the enhanced I/M performance standard and is no longer required.
18. The definition of "Flexible-fuel vehicle" is modified for clarification.

19. The definition of "Gross weight" is deleted as it is no longer used in the regulation.
20. A definition of "Initial inspection" is added for clarification.
21. The definition of "Inspection fee" is expanded to allow for persons other than the station owner to collect the fee.
22. The definition of "Motor vehicle" is modified to reflect statutory changes.
23. The definition of "Motor vehicle inspection report (VIR)" is expanded to clarify when a VIR must be printed and what the VIR contains.
24. A definition is added for "Nonconforming vehicle."
25. The definition of "Normal business hours" is changed to allow more flexibility for inspection station operating hours.
26. Definitions are added for "On-board diagnostic system," "On-board diagnostic test" and "On-board diagnostic vehicle."
27. The definition of "Operated primarily" is changed to be based only on mileage.
28. The definition of "Original Equipment Manufacturer (OEM) dedicated alternate fuel vehicle" is modified for clarity.
29. A definition of "Reference method" is added for clarification.
30. The definition of "Reinspection" "or retest" is modified for clarity.
31. A definition for "Rejected from testing" is added to include vehicles rejected due to unsafe conditions and not ready OBD codes.
32. A definition for "Sensitive mission vehicle" is added per an agreement with federal fleet managers regarding federal fleet testing.
33. The definition of "Thermostatic air cleaner" is modified for clarity.
34. The definition for "Tier 1" is deleted as it is no longer used in the regulation.
35. A definition for "Visible smoke" is added to clarify that exhaust steam is not considered visible emissions.

PART II.

GENERAL PROVISIONS.

9 VAC 5-91-30 Applicability and authority of the department.

1. Subdivisions B3 and B4: The applicability of the I/M program to vehicles, including fleet vehicles, not registered by DMV is changed so as to not be specific to federal fleets.
2. Subdivision C: Requires that vehicles subject to the program shall be submitted for biennial emissions inspections and comply with this regulation.
3. Subdivision C1: Reciprocity for vehicles that received an enhanced emissions inspection in another state is changed to require a passing, not a waiver, result and is limited to one year for purposes of registration. The procedures for presenting proof to DMV and review by DEQ are clarified.
4. Subdivision E2: The words "nor received a waiver during" are added to clarify that a waiver is not allowed for vehicles receiving the used car dealer extension.
5. Subdivision F: The reporting requirements for fleets are specified in accordance with federal officials so as not to be specific to federal fleets.

9 VAC 5-91-41 Review and evaluation of chapter.

6. This section is repealed.

9 VAC 5-91-120 Export and import of motor vehicles.

7. Subdivision A: Language is included to allow the installation or reinstallation of the catalyst.
8. Subdivision C: "Non-conforming vehicles" are exempted if verified as such by the department.

PART III.

EMISSION STANDARDS FOR MOTOR VEHICLE AIR POLLUTION.

9 VAC 5-91-160 Exhaust emission standards for two-speed idle testing in enhanced emissions inspection programs.

1. Subdivision C: Two-speed idle test standards in Table III-A are revised for newer technology vehicles (1990 and newer). The revised standards were determined by an analysis of fail rates in the Virginia program and a review of standards from other state programs. The revised standards reflect the advanced technology of 1990 and newer vehicles. Previously these vehicles only had to meet the standards set for 1981 vehicles.
2. Subdivision D: Delete paragraph regarding "transitional period" since this is no longer applicable.

9 VAC 5-91-170 Exhaust emission standards for ASM testing in enhanced emissions inspection programs.

3. Subdivision B: Flexibility is provided to set ASM standards less stringent than EPA "final standards." Currently the regulation allows only either EPA phase-in standards or EPA final standards. The revised language allows DEQ to determine standards based on an analysis of fail rates. This would enable DEQ to set stricter standards in order to meet EPA emission reduction requirements, but so as not to be too strict.

9 VAC 5-91-180 Exhaust emissions standards for on-road testing through remote sensing.

4. Subdivision A: Provides flexibility for setting on-road (i.e., remote sensing) testing standards to allow DEQ to use CO or HC or any combination as criteria for remote sensing.

5. Subdivision B: Clarifies on-road testing enforcement procedures in accordance with statute.

6. Subdivision C: Revises the remote sensing standards table to be less stringent.

9 VAC 5-91-190 Emissions control systems standards.

7. Subdivisions A, B, C, D: Revised language to be consistent with 9 VAC 5-180-30 Regulation for Mobile Sources.

9 VAC 5-91-200 Evaporative emissions systems standards.

8. Subdivision C: Revises pressure test applicability language and requires the director to notify inspection stations one year in advance if pressure testing is to be implemented.

9. Subdivision D: Deletes purge test requirements.

9 VAC 5-91-210. Visible emissions standards.

10. Revised language to be consistent with regulation for Mobile Sources.

PART IV.

PERMITTING AND OPERATION OF EMISSIONS INSPECTION STATIONS.

9 VAC 5-91-220 General provisions.

1. Subdivision C: Clarifies that transfer of a permit is prohibited.

9 VAC 5-91-230 Applications.

2. Subdivision B: Adds the flexibility for authorized signature to include that of an officer of the corporation.

9 VAC 5-91-260 Emissions inspection station permits, categories.

3. Subdivision A3: Adds provisions for "sensitive mission vehicle" fleet inspection stations in accordance with agreements with federal fleet managers.

9 VAC 5-91-290. Emissions inspection station operations.

4. Subdivision D: Adds "initial" and "on the same vehicle" and "initial inspection" for clarification.

5. Subdivision G: Replaces "if applicable" with "except fleet emissions inspection stations permitted under 9 VAC 5-91-370" for clarification.

9 VAC 5-91-300. Emissions inspection station records.

6. Subdivision G: Specifies that stations shall notify the department of certain changes "within 10 days of such changes."

9 VAC 5-91-310. Sign and permit posting.

7. Subdivision C1: Deletes the requirement for the station to post all emissions standards for all makes and models of vehicles.

9 VAC 5-91-320. Equipment and facility requirements.

8. Subdivision A: Adds the language "and equipment, including all current reference and application guides, as specified in subsection D of this section" in order to clarify and to be specific.

9. Subdivision D1: Adds the requirement "capable of conducting OBD testing" to the equipment requirement.

10. Subdivision D13: Adds reference material for determining proper exhaust emissions test type and standards to the equipment requirements. This would include information such as GVWR or certification type (truck versus passenger vehicle).

9 VAC 5-91-340. Motor vehicle inspection report; certificate of emissions inspection.

11. Subdivision A: Adds the requirement to notify DEQ and the vehicle operator of incorrect VIR printing.

12. Subdivision B: Clarifies that the vehicle operator must be informed of emissions inspection results and that the VIR may be used to communicate test results to the vehicle operator.

9 VAC 5-91-370. Fleet emissions inspection stations; mobile fleet emissions inspection stations.

13. Subdivision A: Clarifies that a fleet inspection station may have special permit requirements.
14. Subdivision E: Specifies the reporting requirements of fleet inspection stations.

PART V.

EMISSIONS INSPECTOR TESTING AND LICENSING.

9 VAC 5-91-380 Emissions inspector licenses and renewals.

1. Subdivision F: Specifies that licensed emissions inspectors must have a valid operator's license.
2. Subdivision J: Adds the applicability of this section for reinstatement of licenses.
3. Subdivision K: Language is added to require requalification as changes in testing technology warrant it.

PART VI.

INSPECTION PROCEDURES.

9 VAC 5-91-410. General.

1. Subdivisions A4 and 6: Provide for OBD testing for certain 1996 and newer vehicles.
2. Subdivision A5: Clarifies that visible smoke emissions must be checked.
3. Subdivision A7: Deletes purge testing.
4. Subdivision A8: Specifies that the emission inspector must sign each VIR certifying that he or she performed the inspection in accordance with this chapter.
5. Subdivision A10: Clarifies that a retest must be free if performed within 14 days of the "initial chargeable inspection."

9 VAC 5-91-420. Inspection procedure; rejection, pass, fail, waiver.

6. Subdivision C7: Specifies that the inspector may reject a vehicle in an overheated condition or thinks that such condition will be present during testing.
7. Subdivision C8: Specifies OBD acceptance for testing requirements according to EPA requirements: vehicles will be rejected from testing if a data link cannot be established or if three or more monitors are in "not ready" status (two or more for 2001 and newer vehicles).

8. Subdivisions D1, 5, 6, and 7; and G2: "For vehicles subject to exhaust emissions testing" is added to distinguish that these do not apply to vehicles subject to the OBD testing.
9. Subdivision D8: Clarifies that tests must be conducted in their entirety with certain exceptions.
10. Subdivision F: Specifies that vehicle information, visual test results and visible smoke results as applicable must be entered into the certified analyzer.
11. Subdivision G: "For 1973 and newer model year vehicles" is deleted since older vehicles are no longer tested.
12. Subdivision G2: Specifies that overall visual test results must be entered into the certified analyzer. Also allows certain exemptions for emissions control system components due to unavailability of parts.
13. Subdivision G3: Specifies that an OBD test must be performed in lieu of a tailpipe test for certain vehicles 1996 and newer according to EPA regulations and that DEQ may also perform exhaust emissions testing on a limited basis for quality control or program evaluation purposes.
14. Subdivision G3a: Changes OBD "demonstration" startup for light-duty gasoline vehicles from 1/4/1999 to "pending availability and installation of hardware and software."
15. Subdivision G3b: Changes OBD "pass-fail" start-up from 1/3/2000 to the effective date of the regulation or pending availability and installation of hardware and software according to revised EPA regulations. Also specifies OBD passing criteria: malfunction indicator lamp must be operational and must not be on or commanded on with engine running.
16. Subdivision G3c: Provides for OBD testing of light-duty diesel vehicles starting two years after the effective date of the regulation.
17. Subdivision G3d: Provides for exceptions to OBD testing standards for certain vehicles.
18. Subdivision H: Adds "this or other state programs" as an information source for DEQ with respect to consideration of vehicle-specific test sequence changes.
19. Subdivisions J2 and 4: Changes "1968 through 1980" to "1980 and older." Adds "the department" as an information source.
20. Subdivision K: Deletes purge test section and adds "For vehicles originally factory equipped with an evaporative emissions control system," to account for vehicles which are not so equipped.

21. Subdivision L: Makes revisions to account for OBD testing: OBD vehicles do not receive the emission component checks but do receive gas cap pressure tests and smoke tests.
22. Subdivision N1: "1973 and newer model year vehicles only" is deleted since it no longer applies.
23. Subdivision N3: Requires that vehicle passes an evaporative pressure test or fuel filler cap pressure test, or both.
24. Subdivision N5: Changes "appropriate" to "emissions related" for repairs applicable to waiver expenses since repairs must be performed by or under the supervision of a certified emissions repair technician.
25. Subdivision N6: Eliminates provisions setting waiver phase-in amounts for dates that have already passed.

9 VAC 5-91-430. ASM test procedure.

26. Subdivision A2a: The word "also" is added for clarification.
27. Subdivision A2c: Deleted the requirement that the vehicle be operating for the pressure test and the fuel-filler cap test.
28. Subdivision A2d: Paragraph regarding the purge test is deleted.
29. Subdivision A4: States that the vehicle shall be properly restrained for ASM testing without dictating exactly how but leaves that flexibility to the inspector and station personnel.
30. Subdivision B: Provides flexibility to "2nd chance to pass" conditions by adding the words: "The department may increase the percentage to up to 200% of the standard for the interim or final standards." Provides the flexibility to eliminate the test if the vehicle has already failed the component check.
31. Subdivision C1: Provides discretion to the department to change default settings based on EPA guidance.
32. Subdivision C4: Adds provision for 15 seconds of test to occur in preconditioning sequence to conform to current practice.
33. Subdivision D1: Provides discretion to the department to change default settings based on EPA guidance.

9 VAC 5-91-440. Two-speed idle test procedure.

34. Subdivisions A2 and 3: Changes the TSI test sequence to conform with NVAS specification and current practice: i.e., the idle test is performed after the 2500 rpm

mode test. Also changes the preconditioning to conform with NVAS specification and current practice and provides flexibility for DEQ to eliminate repeating 1st chance test modes that were already passed.

35. Subdivision A7c: No longer requires that the vehicle be turned-off while conducting the evaporative emissions pressure test and fuel filler cap test.

36. Subdivision B4: Corrects idle mode test length to conform with NVAS specification and current practice: the test modes are of 30-second duration.

37. Subdivision B5: Corrects averaging time to conform with NVAS specification and current practice: i.e., last 5 seconds of 30-second test mode.

38. Subdivision C3: Clarifies that if the rpm falls outside of a 2200 to 2800 rpm window for more than a cumulative total of 10 seconds, the 2500 rpm test mode must be restarted, to conform with NVAS specification and current practice.

39. Subdivision C5: Corrects 2500 rpm mode test length to conform with NVAS specification and current practice: the test modes are of 30-second duration.

40. Subdivision C6: Deleted since currently the 2nd chance 2500 rpm mode is always preceded by the idle mode second chance test.

41. Subdivision C6 (new numbering): Corrects averaging time to conform with NVAS specification and current practice: i.e., last 5 seconds of 30-second test mode.

9 VAC 5-91-450. Fuel system evaporative pressure test and gas cap pressure test procedure.

42. Subdivision D: Specifies gas cap testing requirements for multi-tank vehicles.

9 VAC 5-91-460. Repealed.

43. Entire section is deleted since there are no plans to do a purge test.

9 VAC 5-91-470. Short test standards for warranty eligibility.

44. Entire section is deleted since short test standards for warranty eligibility are administered by the federal EPA.

9 VAC 5-91-480. Emissions related repairs.

45. Subdivision A: Removes language that is redundant and confusing.

46. Subdivision C: Specifies that emissions related repair costs can qualify for the minimum waiver requirement only if performed at a Certified Emissions Repair Facility and performed by, or under the supervision or approval of, a Certified Emissions Repair

Technician on duty at the time the repairs were performed. This is provided for elsewhere in the regulation and is added here for clarity.

9 VAC 5-91-490. Engine and fuel changes.

47. Subdivision B: Language referring to vehicles of model year 1973 and older is removed.

48. Subdivision C: Language is added for clarity.

PART VII.

VEHICLE EMISSIONS REPAIR FACILITY CERTIFICATION.

9 VAC 5-91-500. Applicability and authority.

1. Subdivision B: Adds “current certified facilities and applicants for” to the list of those to whom this part applies for completeness and clarity.

9 VAC 5-91-510. Certification qualifications.

2. Subdivision D: Adds “changes in partnership” and changes “will” to “shall” and “may” to “will.”

3. Subdivision H 2 I: Adds OBD scan tool as specified by federal guidance to the list of required equipment and differentiates between an OBD scan tool and the non-OBD-II scan tool already required.

9 VAC 5-91-520. Expiration, reinstatement, renewal, and requalification.

4. Subdivision A: Adds “temporary inactive status” to reasons for disallowing certification for waiver repairs and adds provisions to reactivate or reinstate certification.

9 VAC 5-91-530. Emissions repair facility operations.

5. Subdivision B: Specifies that certified emissions repair facilities must notify DEQ immediately if changes occur affecting their ability to perform waiver repairs.

6. Subdivision D: Specifies that emissions repair forms must be properly filled out and signed by the certified emissions repair technician.

7. Subdivision I: Specifies that waiver repairs must be performed in accordance with applicable sections of this regulation for clarity.

9 VAC 5-91-540. Sign and certification posting.

8. Subdivision B: Requires that certificates be posted according to DEQ requirements.

9. Subdivision C: Adds the requirement that any DEQ-required signs meet local sign ordinances.

PART VIII.

EMISSIONS REPAIR TECHNICIAN CERTIFICATION AND RESPONSIBILITIES.

9 VAC 5-91-550. Applicability and authority.

1. Subdivision A: Adds the words “emissions related” with respect to waivers for clarification.
2. Subdivision B: Adds “current certified technicians and applicants” to those to whom this part applies.

9 VAC 5-91-580. Certified emissions repair technician responsibilities.

3. Subdivision A: Specifies that it shall be a violation to claim to be a certified emissions repair technician without the proper certification.
4. Subdivision D: Specifies that certified emissions repair technicians can sign data repair forms only for repairs that were performed while they were on duty.

PART IX.

ENFORCEMENT PROCEDURES.

9 VAC 5-91-610. Consent orders and penalties for violations.

1. Subdivision H: Adds the condition that inspectors may have to demonstrate requalification through instruction or testing.

9 VAC 5-91-620. Major violations.

2. Subdivision B: Clarifies that violations of this regulation by any regulated party may constitute a major violation and revises the list of major violation sections to conform with the program changes made as a result of these amendments.
3. Subdivision D: Adds “or while under the influence of alcohol or illegal drugs” and adds that this shall be grounds for revocation.

PART X.

ANALYZER SYSTEM CERTIFICATION AND SPECIFICATIONS FOR ENHANCED EMISSIONS INSPECTION PROGRAMS.

9 VAC 5-91-650. Design goals.

1. Subdivision D: Deletes purge test equipment.

9 VAC 5-91-680. Certification of analyzer systems.

2. Subdivision D1: Clarifies that non-gasoline vehicles are not covered by ASM testing.
3. Subdivision D3: Corrects the preconditioning time to read "may be up to 90 seconds." It is currently 30 seconds.
4. Subdivision D4: Changes the required OBD connectivity date from January 4, 1999 to January 1, 2002.
5. Subdivision D9: Removes the requirement for automatic quarterly audit prompts to conform to actual practice and the NVAS specification.

9 VAC 5-91-700. Calibration of exhaust gas analyzers.

6. Subdivision 2: Removes "automatically perform" and changes "three-point" to "two-point" calibrations to conform to actual practice and the NVAS specification.
7. Subdivision C: Clarifies gas audit requirements to conform to actual practice and the NVAS specification.

PART XI.

MANUFACTURER RECALL.

9 VAC 5-91-720. Vehicle Manufacturer Recall.

1. Subdivision A: Delays applicability until an emissions recall data base and associated hardware and software are available.

PART XIII.

FEDERAL FACILITIES.

Entire Part is repealed as not applicable per agreement with federal fleet managers.

PART XIV

ASM EXHAUST EMISSION STANDARDS.

9 VAC 5-91-790. ASM Start-up standards.

1. Table 14.1: Removes "Tier 1" and changes model year from 1994+ to "1996 and later" for LDV and LDT1, and to "1997 and later" for LDT2.

9 VAC 5-91-800 ASM Final Standards.

2. Table 14.2: Removes "Tier 1" and changes model year from 1994+ to "1996 and later" for LDV and LDT1, and to "1997 and later" for LDT2.1.

Alternatives

Please describe the process by which the agency has considered less burdensome and less intrusive alternatives for achieving the need. Also describe, to the extent known, the specific alternatives to the proposal that have been considered to meet the need, and the reasoning by which the agency has rejected any of the alternatives considered.

As provided in the public participation procedures of the State Air Pollution Control Board, the Department included, in the Notice of Intended Regulatory Action, a description of the Department's alternatives and a request for comments on other alternatives and the costs and benefits of the Department's alternatives or any other alternatives that the commenters provided.

Following the above, alternatives to the proposed regulation amendments were considered by the Department. The Department determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulation. The alternatives considered by the Department, along with the reasoning by which the Department has rejected any of the alternatives being considered, are discussed below.

1. Amend the regulations to satisfy the provisions of the law and associated regulations and policies. This option was chosen because it meets the stated purpose of the regulation: develop a regulation revision which conforms to state law and federal Clean Air Act requirements for the testing of emissions from motor vehicles located or primarily operated in Northern Virginia.
2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option was not chosen because it does not provide for implementation of a motor vehicle emissions testing program that meets the provisions, or meets alternative provisions, of the state code, federal Clean Air Act and associated EPA regulations and policies. No regulatory alternatives to an enhanced I/M program have been promulgated by EPA as meeting the requirements of the Act. Adopting an un-approvable program will result in sanctions being imposed by EPA.
3. Take no action to amend the regulations and continue to operate under the existing regulation. This option is not being selected because it risks sanctions by the EPA.

Public Comment

Please summarize all public comment received during the NOIRA comment period and provide the agency response. If no public comment was received, please include a statement indicating that fact.

1. **SUBJECT**: Regulation drafted without public input.

SPEAKER: Mr. Paul Sisson, Gunston Texaco.

COMMENT: Concern was expressed that it was very difficult to comment on a list of changes the Department wants to make to the regulation without seeing the proposed changes. He was under the impression that the draft regulation had already been developed and couldn't comment on the draft without seeing it. He specifically requested that the department create an ad hoc group to assist in the process if it wasn't too late.

RESPONSE: It was explained that the field staff had developed a document that identified concerns about the operation of the enhanced program and suggestions on how to improve it but that no official draft regulation document had been created and, in fact, the public meeting was the official first step in that regulation process. The regulation adoption process was outlined as well as the role of the ad hoc group. It was explained that the creation and work of the ad hoc group was key to development of the draft regulation that would be reviewed and considered by the Board.

2. **SUBJECT**: Regulation drafted without public input.

SPEAKER: Mr. Bobby Jones, Northern Virginia Auto.

COMMENT: It was stated that a draft of the regulation already existed and concern was expressed that the regulated community had been intentionally left out of the process. The department was encouraged to form an advisory group so that the station owners and inspectors could assist in developing any changes to the regulation.

RESPONSE: See response to number one above.

3. **SUBJECT**: OBD₂ Testing.

SPEAKER: Mr. Paul Sisson, Gunston Texaco.

COMMENT: The question was raised as to what the department intends to do about OBD₂ (on board diagnostic testing, 2nd generation). Inspectors in Colorado have indicated that some vehicles there have passed a tail pipe probe even though the on-board diagnostic light is on. How will Virginia address that?

RESPONSE: On April 5, 2001, the EPA published a final rule regarding the incorporation of onboard diagnostic (OBD) testing into inspection and Maintenance (I/M) programs. The rule amends previous OBD I/M requirements to postpone from January 1, 2001 to January 1, 2002 (with the possibility of an additional 12-month postponement) requirements for mandatory implementation of OBD testing and provides flexibility to states and local areas with respect to the phasing in, between 2002 and 2005, of mandatory OBD checks. In addition, the rule includes provisions to allow states and localities discretion to replace traditional I/M tests with OBD system checks for model year 1996 and newer vehicles.

The proposal includes language that allows the DEQ time and flexibility to evaluate the merits of OBD in conjunction with acceleration simulation mode (ASM) or two-speed idle (TSI) testing. When the evaluation is complete a determination will be made as to if, when or how the department will replace the tradition I/M tests with OBD system checks for newer model vehicles.

4. **SUBJECT**: OBD₂ Testing.

SPEAKER: Mr. Bobby Jones, Northern Virginia Auto.

COMMENT: It was understood that the DEQ staff position regarding OBD₂ was leaning toward accepting the OBD₂ computer indicator as the primary component for the test. This would mean that the tail-pipe probe would no longer be needed. Caution against this approach was spoken citing that information indicated that vehicles could still pass a tail-pipe test even with the OBD light on. The problems with the first generation of OBD have been documented and it was suggested that due to those inherent problems it would be unwise for the program to completely do away with the tail-pipe probe. It was also suggested that the OBD computer could be altered such that the computer could give false readings.

RESPONSE: See response to number three above.

5. **SUBJECT**: OBD₂ Testing.

SPEAKER: Mr. John Cabaniss, Technical Director, Association of International Automobile Manufacturers (AIAM), Inc.

COMMENT: AIAM supports the continuation of the ASM and fuel cap tests for pre-1996 model year vehicles. However, for 1996 and newer, AIAM believes that the best method of I/M testing "is to rely solely on the use of the vehicle's OBD system."

Dual testing of 1996 and newer vehicles (i.e. require both tailpipe and OBD testing) is redundant and unnecessary. EPA studies have documented that the use of stand-alone OBD inspections for 1996 and newer model year vehicles is effective. These studies show that OBD checks for 1996 and newer vehicles identify a higher fraction of emissions problems with the affected fleet, have virtually no errors of omission (i.e. virtually no dirty vehicles pass the OBD check), and have virtually no false failures. There is added advantage with OBD checks that all vehicles modes are monitored (cold start, normal operation, and aggressive driving) throughout the full operation of the vehicle; whereas, the tailpipe I/M test is limited to a narrow operating mode for a very short time frame. EPA's recent proposed rule (see 65 FR 56844, September 20, 2000) regarding use of OBD in I/M programs recommends that states rely on stand-alone OBD testing and provides full I/M SIP credits for states using stand-alone testing. Therefore, there are no environmental benefits for performing dual testing.

It is also confusing to motorists to have more than one testing criterion imposed by I/M regulations. Because more vehicles will fail an OBD check than fail an ASM test, there is a significant potential for conflicting test results, i.e., some vehicles with OBD MILs illuminated will pass the ASM test. This creates a significant consumer problem in trying to explain conflicting test results between the two tests. Since the ASM test will not identify additional vehicles, adds extra costs, and creates consumer issues, AIAM believes that dual testing is redundant, inadvisable, and cost ineffective. ...EPA recommends against dual testing.

The OBD systems on most 1996 and newer model year vehicles also monitor the vehicle's evaporative emissions system, including the fuel cap. Evaporative monitoring via OBD was phased in during the 1996-1998 model years. Therefore, AIAM believes that it is also redundant and unnecessary for states to require fuel cap tests for 1996 and newer model year vehicles.

RESPONSE: See response to number three above.

6. **SUBJECT:** Safety Inspections.

SPEAKER: Mr. Paul Sisson, Gunston Texaco.

COMMENT: It was stated that the DEQ inspectors in the field are doing their jobs just like the vehicle inspectors are doing their jobs but small problems can lead to big headaches. In the instance of safety inspections and checking tire pressure, it was indicated that according to the regulations, the tire pressure check is part of the pre-inspection. However, some inspectors check tire pressure while the computer is transmitting data to the DMV files after the emission inspection because it is a more efficient use of time. Some have said that inspectors at other stations have been reprimanded for doing the safety tire pressure inspection at some time other than during the pre-inspection. The question was posed if DEQ really cares when we do the safety inspection and what difference does it make as long as it gets done?

Station inspectors are the ones that know the program, have to work with it and know the problems and therefore should be the ones that provide input to possible changes to the program.

RESPONSE: The proposal has been modified to allow more flexibility and inspector discretion while conducting either the TSI or ASM testing. The associated "Major Violation" table has also been modified to reflect the new flexibility in the regulation.

7. **SUBJECT:** Safety Inspections.

SPEAKER: Mr. Bobby Jones, Northern Virginia Auto.

COMMENT: It was requested that the safety protocols be moved to the inspectors' discretion. Shops have liability insurance so the decision to either strap or not strap a vehicle down was equipment dependent and should not be mandated in regulation. It was also indicated that the mandate to use an exhaust hose, for example, was also specific to the shop design and should not be required in regulation. Some shops are designed so that the exhaust is vented through the roof. The use of an exhaust hose would be counterproductive. Many areas of the regulation needed to be changed from "shall do" to "may perform as needed."

Safety issues should be left to the discretion of the shop owners and inspectors and the request was made that all of these issues and others be addressed in the ad hoc group meetings.

RESPONSE: See response to number six above.

8. **SUBJECT:** Pressure Test.

SPEAKER: Mr. Paul Sisson, Gunston Texaco.

COMMENT: To conduct a proper pressure test would, in some cases, require cutting vapor lines to check for leaks. He asked if the customers will accept that or if we really want to be cutting perfectly good lines. It was indicated that these are just some examples of things that need to be addressed.

RESPONSE: The proposal provides the flexibility of conducting a pressure test if the pilot program and subsequent evaluation indicate that it would be cost effective. In the interim, the proposal requires that at a minimum the gas cap pressure test be incorporate into the test.

9. **SUBJECT:** Test Frequency.

SPEAKER: Mr. John Cabaniss, Technical Director, Association of International Automobile Manufacturers (AIAM), Inc.

COMMENT: It was stated that vehicles should be exempt from testing until they are five years old and that biennial testing should remain but that there should be a change-of-ownership test conducted.

RESPONSE: The proposal reflects the requirements of state statute (§46.2-1183) which states, in part: "No vehicle subject to the provisions of this article shall be registered or reregistered until it has passed an emissions inspection or has been issued an emissions inspection waiver. Any (i) proof of compliance with emissions standards and emissions inspection requirements and (ii) emissions inspection waiver issued for any motor vehicle shall be valid for two years from the end of the month in which it is issued, regardless of any sale or trade of the motor vehicle for which either document was issued

during that time.” The statute defines the frequency of testing and both suggestions are prohibited by law.

Clarity of the Regulation

Please provide a statement indicating that the agency, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

The Department, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

Periodic Review

Please supply a schedule setting forth when the agency will initiate a review and re-evaluation to determine if the regulation should be continued, amended, or terminated. The specific and measurable regulatory goals should be outlined with this schedule. The review shall take place no later than three years after the proposed regulation is expected to be effective.

The Department will initiate a review and re-evaluation of the regulation to determine if it should be continued, amended, or terminated within three years after its effective date.

The specific and measurable goals the proposed regulation amendments are intended to achieve are as follows:

1. To protect public health and/or welfare with the least possible cost and intrusiveness to the citizens and businesses of the Commonwealth.
2. To ensure that owners maintain their motor vehicles in compliance with emissions standards by requiring a periodic emissions inspection for the vehicles.
3. To prohibit emissions which would (i) contribute to nonattainment of any air quality standard or interference with maintenance of any standard or (ii) adversely impact public health and/or welfare.

Family Impact Statement

Please provide an analysis of the proposed regulatory action that assesses the potential impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

It is not anticipated that these regulation amendments will have a direct impact on families. However, there will be positive indirect impacts in that the regulation

amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

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